



Reforestation Forecast Methodology Version 2.0 ERRATA AND CLARIFICATIONS

The Climate Action Reserve (Reserve) published its Reforestation Forecast Methodology Version 2.0 in April 2022. While the Reserve intends for the methodology to be a complete, transparent document, it recognizes that correction of errors and clarifications will be necessary as the methodology is implemented and issues are identified. This document is an official record of all errata and clarifications applicable to the Reforestation Forecast Methodology Version 2.0.¹

Per the Climate Forward Program Manual, both errata and clarifications are considered effective on the date they are first posted on the Climate Forward website. The effective date of each erratum or clarification is clearly designated below. All new and listed reforestation projects must incorporate and adhere to these errata and clarifications when they undergo confirmation, including those undergoing confirmation at the time any new errata or clarifications are issued. The Reserve will incorporate both errata and clarifications into future versions of the methodology.

All project proponents and confirmation bodies must refer to this document to ensure that the most current guidance is adhered to in project design and confirmation. Confirmation bodies shall refer to this document immediately prior to uploading any Confirmation Opinion to assure all issues are properly addressed and incorporated into confirmation activities.

If you have any questions about the updates or clarifications in this document, please contact the Reserve team at info@climateforward.org or (213) 891-1444.

¹ See the policy memo dated June 6, 2023, or the Climate Forward Program Manual for an explanation of the Reserve's policies on methodology errata and clarifications. For document management and program implementation purposes, both errata and clarifications are contained in this single document.

Please ensure that you are using the latest version of this document

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Section 3.2

1. Project Start Date (CLARIFICATION – October 30, 2024)

Section: 3.2 (Project Start Date and Crediting Period)

Context: The current language explains how project proponents shall determine the project start date based on the first date that either “trees have been planted or site preparation activities have been initiated for the natural regeneration of trees.” Site preparation used to prepare the project area for planting is not explicitly encapsulated by this language, though such efforts are intended to be included as the potential basis for the project start date.

Clarification: The first paragraph of Section 3.2 shall now read as follows (bold text indicating new text, strikethrough text indicating text being removed):

“The project start date is the first date that **one of the two following activities occurs:**

1. Trees have been planted (**i.e., no site preparation prior to planting**) or
2. Site preparation activities have been initiated for the natural regeneration of trees **and/or for planting.**

The project must be submitted for listing within one year of the project start date. However, project activities (planting **and/or** site preparation ~~for natural regeneration~~) may still be ongoing at the time the project is submitted.”

Section 3.5

2. Regulatory Compliance Relevant to Project (CLARIFICATION – October 4, 2023)

Section: 3.5 (Regulatory Compliance)

Context: The current language indicating the regulatory compliance obligations of projects is overly broad and not reflective of the programmatic approach employed by the Reserve in interpretation of regulatory violations and embodied in programmatic documentation, including the Climate Forward Program Manual. The intended scope of the regulatory compliance requirement and violations contrary to it is generally limited to those legal obligations, and violations thereof, that have an impact on the GHG emissions reductions or carbon removals of a project and are caused by actions undertaken as part of the project activities.

Clarification: Section 3.5 shall now read as follows (bold text indicating new text):

“The project proponent must sign an Attestation of Regulatory Compliance prior to the commencement of project confirmation activities, attesting that **the project has not caused any material violations of applicable** laws, and provide an assessment of any aspects of the project that may present a risk of future regulatory violations. Where such risks are identified, the project proponent shall describe measures undertaken to reduce and/or mitigate these risks.

Project proponents are required to disclose in writing to the confirmation body any and all instances of legal violations – material or otherwise – caused by the project activities. A violation would be considered to be “caused” by project activities if it can be reasonably argued that the violation would not have occurred in the absence of the project activities. If there is any question of causality, the project proponent shall disclose the violation to the confirmation body.

The confirmation body shall endeavor to confirm that the project implementation did not result in any regulatory or legal noncompliance, and also that appropriate measures have been implemented to avoid potential future noncompliance during the project crediting period. **If a confirmation body finds that project activities have caused a material violation, then the project will not be eligible to have FMUs issued. Individual violations due to administrative or reporting issues, or due to “acts of nature,” are not considered material and will not affect FMU crediting. However, recurrent administrative violations directly related to project activities may affect crediting. Confirmation bodies must determine if recurrent violations rise to the level of materiality. If the confirmation body is unable to assess the materiality of the violation, then the confirmation body shall consult with the Reserve.”**

Section 3.8.1

3. Projects on Government-Owned Lands and Tonne-Tonne Accounting (CLARIFICATION – June 22, 2023)

Section: 3.8.1 (Ensuring Permanence – Tonne-Tonne Accounting)

Context: Section 3.8.1 identifies landowner and management conditions under which the Reserve is willing to issue credits based on tonne-tonne accounting. One condition indicated is locating a project on government-owned lands where the project proponent is able to demonstrate the management of the project area can be reasonably expected to result in each of two conditions. First, management will lead to forest carbon stocking levels on the project area that meet or exceed the levels associated with the year in which the culmination of mean annual increment (CMAI) is projected to occur (or 100 years after the start of the project if CMAI is not projected to occur prior to then). Second, management will maintain such stocking levels consistent with a 100-year permanence assumption. Project proponents must provide information supporting the assertion that both conditions will be met, including descriptions of management history, stated management objectives, and the likelihood of current management plans changing in the future in ways that are inconsistent with either required condition.

The Reserve recognizes that tribal trust lands, defined as land held in trust by the Bureau of Indian Affairs (US Department of Interior) or by a state for the benefit of a tribe, are managed under governance structures that are sufficiently similar to other government-owned lands. As such, the Reserve wishes to clarify that tribal trust lands are similarly eligible for the application of tonne-tonne accounting under the landowner class “government (secured),” as long as both conditions described above are demonstrated by the project proponent.

Clarification: The second paragraph immediately below Table 3.1 (Conservation Easement Terms) shall now read as follows (bold text indicating new text):

“Projects on government-owned lands **or on tribal trust lands**¹² also meet the permanence requirement using tonne-tonne accounting under certain conditions. To be eligible to use tonne-tonne accounting, projects on public **or tribal trust** lands must be able to demonstrate that management is expected to lead to increases in carbon stocks that: 1) meet or exceed those stocks projected for the project area for the lesser of either 100 years or the year at which the Culmination of Mean Annual Increment (CMAI) occurs, and 2) are maintained at or above such projected stocking levels. CMAI is a benchmark for measuring forest maturity which can be determined from the growth projections. Forest stands at CMAI are more likely to undergo a regeneration harvest. Although forests on public **or tribal trust** lands may very well grow beyond CMAI, considering the accumulation of carbon only to the point of CMAI is a conservative approach to quantification. To demonstrate consistency of management with the 100-year permanency of projected stock increases on a project area on public **or tribal trust** lands, the project proponent must provide a description of the following:

- Management history
- Management objectives
- Likelihood of management plan changing in the future in a way that will prevent projected increases in carbon stocks from being achieved.”

The first sentence of the subsequent paragraph is similarly corrected to read as follows (bold text indicating new text):

“In the case of a project either with a perpetual conservation easement including the requisite terms described above or on public **or tribal trust** lands capable of demonstrating management consistency with the long-term maintenance of projected carbon stock increases (hereafter referred to under the landowner class “government (secured)”), FMU issuance would be based on the tonne-tonne value projected for the crediting period, net of the programmatic *ex ante* and permanence risk discounts (see Sections 5.3 and 5.6).”

Section 5

4. GHG Emissions Removals Equation (ERRATUM – October 4, 2023)

Section: 5 (Quantifying GHG Emission Removals)

Context: Section 5 includes Equation 5.1, which is the basis for calculating the FMUs to be issued to a project. The equation includes the following sub-equation for the calculation of emissions removals by forest type:

$$ER_f = \left[\sum_{y=1}^{CP_f} \left((\Delta AC_{tree,f,y} + (AC_{soil,f,y} - BC_{soil,f})) \times 1\% \times (CP_f - y + 1) \right) \right] \times (1 - (CC_{tree,f} + S_f)) + MIN(0, (AC_{shrub,f,CP} - BC_{shrub,f,0}))$$

Embedded in that sub-equation are percentage-based deductions applied to gross removals based on estimates of pre-existing (i.e., baseline) mature trees ($CC_{tree,f}$) and natural

¹² Land held in trust by the Bureau of Indian Affairs (US Department of Interior) or by a state for the benefit of a tribe.

regeneration (S_f). The current structure of the equation, whereby the percentage deductions are summed, is incorrect. Since the assessment of pre-existing natural regeneration is only intended to capture how much such regeneration will contribute to the future stand, the assumption is that any pre-existing canopy trees will continue occupying their current canopy area. As such, only those areas not currently occupied by canopy trees would be available for future occupation by trees growing from pre-existing natural regeneration. To reflect this, the equation should multiply the deductions rather than sum them.

Correction: Equation 5.1 shall now read as follows (bold text indicating corrected text):

$$ER_f = \left[\sum_{y=1}^{CP_f} \left((\Delta AC_{tree,f,y} + (AC_{soil,f,y} - BC_{soil,f})) \times 1\% \times (CP_f - y + 1) \right) \right] \times \left((1 - CC_{tree,f}) \times (1 - S_f) \right) + MIN \left(0, (AC_{shrub,f,CP} - BC_{shrub,f,0}) \right)$$

5. GHG Emissions Removals Equation (ERRATUM – October 30, 2024)

Section: 5 (Quantifying GHG Emission Removals)

Context: Section 5 includes Equation 5.1, which is the basis for calculating the FMUs to be issued to a project. The equation includes the following sub-equation for the calculation of emissions removals by forest type:

$$BC_{shrub,f,0} = (CC_{shrub,pre,f} - CC_{shrub,post,f}) \times A_f \times RE_f$$

The intent of shrub carbon quantification, as correctly described in the methodology in Sections 5.1.3 and 5.2.2, is to account for changes—specifically, losses—in shrub carbon over the course of the project crediting period. However, Equation 5.1 currently indicates that the change in shrub carbon, from just prior to site preparation to just after site preparation is completed, is the underlying basis for determining baseline shrub carbon stocking ($BC_{shrub,f,0}$). This calculation assesses how much carbon is lost only in relation to site preparation and does not provide a stocking value against which shrub stocking at the end of the crediting period can be compared, as Section 5.2.2 otherwise describes. This includes situations where no site preparation is involved. To properly capture the stated intent of the methodology, the equation is being modified to remove the comparison to post-site preparation shrub cover, leaving only the pre-start date shrub cover as the basis for calculating baseline shrub stocking.

Correction: Equation 5.1 shall now read as follows (bold text indicating corrected text, strikethrough text indicating text being removed):

$$BC_{shrub,f,0} = (CC_{shrub,pre,f} - CC_{shrub,post,f}) \times A_f \times RE_f$$

$BC_{shrub,f,0}$	=	Baseline shrub carbon at the initiation of project activities for forest type f	tCO ₂ e
$CC_{shrub,pre,f}$	=	Shrub cover as a percentage of the area A comprising forest type f prior to site preparation activities the project start date	%
$CC_{shrub,post,f}$	=	Shrub cover as a percentage of the area A comprising forest type f after site preparation activities have occurred	%
A_f	=	Total area represented by forest type f	Acres
RE_f	=	Ratio estimator, by height class, for shrub carbon stocking for location of forest type f	tCO ₂ e/acre

6. Baseline Natural Regeneration Assessment Requirements (ERRATUM – June 22, 2023)

Section: 5.1.2 (Estimating Baseline Stocks - Naturally Regenerating Seedlings)

Context: Section 5.1.2 describes the evaluation of pre-existing natural regeneration in the absence of site preparation activities that result in the promotion of natural regeneration to account for baseline seedlings. Project proponents are to install sample plots where they are to perform an assessment of the contribution of pre-existing natural regeneration to the future canopy cover on the site. The section also describes how the results from plot assessments are entered into the Reforestation Communities Data File, which then automatically calculates the appropriate deduction to be applied. More specifically, the first paragraph immediately below Table 5.1 in Section 5.1.2 currently states: “Plot results are to be entered into the Reforestation Communities Data File, which automatically determines the Natural Regeneration Class for the project or for the forest type based on the mode of the sample results.”

Correction: The first paragraph immediately below Table 5.1 in Section 5.1.2 shall now read as follows (bold text indicating corrected text):

“Plot results are to be entered into the Reforestation Communities Data File, which automatically determines the Natural Regeneration Class for the project or for the forest type based on the **mean** of the sample results.”

7. Baseline Shrub Carbon Assessment Requirements (ERRATUM – October 30, 2024)

Section: 5.1.3 (Estimating Baseline Stocks – Shrub Carbon)

Context: Section 5.1.3 describes the basis for assessing baseline shrub cover to account for baseline shrub carbon stocking. The intent, as stated in the methodology, is to account for potential losses in shrub carbon stocks over the course of the project crediting period as a result of project activities. However, the description in Section 5.1.3 contains information that is not relevant to the correct method for calculating baseline shrub carbon stocking, as indicated above in “GHG Emissions Removals Equation (ERRATUM – October 30, 2024).” The methodology is being modified to remove this information. Also, see the clarification in “Baseline Shrub Carbon Assessment Requirements (CLARIFICATION – October 30, 2024)” for an additional modification to the language otherwise being corrected here.

Correction: The second and third paragraphs in Section 5.1.3 shall now read as follows (strikethrough text indicating text being removed):

~~“Projects are required to assess baseline shrub carbon stocks for each forest type within the project area using remotely sensed imagery based on the sampling methodology indicated in Appendix B. The remote sensing data used for the analysis should be from a month where foliage is present and visible (spring or summer) and must be dated within the 12 months prior to the start date for variable $CC_{shrub,pre,f}$ in Equation 5.1. If the project involves site preparation activities, analysis must also be performed using imagery from within the 12 months following completion of such activities to determine the value for variable $CC_{shrub,post,f}$. Contact Reserve staff if no images fitting these requirements are available.~~

~~If all shrub cover is removed during site preparation activities, analysis of post treatment shrub cover is not required. Furthermore, project proponents may optionally assume for quantification purposes that all shrub cover has been removed rather than conducting the post treatment shrub cover analysis, which will result in a conservative estimate of shrub stocks that have been removed. Projects with no shrub cover within the project area immediately preceding the project start date are not required to perform the shrub canopy cover analysis, though the project proponent must provide remote sensing imagery of the project area from prior to the project start date demonstrating the lack of shrub cover in such cases.”~~

8. Baseline Shrub Carbon Assessment Requirements (CLARIFICATION – October 30, 2024)

Section: 5.1.3 (Estimating Baseline Stocks – Shrub Carbon)

Context: Section 5.1.3 describes the basis for assessing baseline shrub cover to account for baseline shrub carbon stocking. Shrub cover prior to the start date may be difficult to determine for a variety of reasons. For example, shrubs may be difficult to discern from trees and herbaceous vegetation in remotely sensed imagery or imagery may not be available that allows for the evaluation of shrub cover just before the project start date. In such cases, project proponents may be unable to perform the baseline shrub cover analysis as required. To address this, a provision is being added indicating that project proponents may simply assume 100 percent shrub cover prior to the project start date rather than performing the assessment of shrub cover, as otherwise described, thereby providing a conservative basis for quantifying baseline shrub carbon stocking.

Clarification: The third paragraph in Section 5.1.3 shall now read as follows (bold text indicating new text, strikethrough text indicating text removed in the preceding erratum):

~~“If all shrub cover is removed during site preparation activities, analysis of post treatment shrub cover is not required. Furthermore, project proponents may optionally assume for quantification purposes that all shrub cover has been removed rather than conducting the post treatment shrub cover analysis, which will result in a conservative estimate of shrub stocks that have been removed.~~ **In some cases, project proponents may be unable to perform the assessment of baseline shrub cover, owing to difficulties discerning shrub cover from other vegetation types in remote sensing imagery, lack of suitable imagery, or other reasons. As such, project proponents may optionally apply a shrub**

cover value of 100 percent for the variable $CC_{shrub,pre,f}$ in lieu of performing the assessment of shrub cover, thereby assuming a conservative level of baseline shrub cover. Projects with no shrub cover within the project area immediately preceding the project start date are not required to perform the shrub canopy cover analysis, though the project proponent must provide remote sensing imagery of the project area from prior to the project start date demonstrating the lack of shrub cover in such cases.”

Section 7.3

9. Reporting and Confirmation Period (CLARIFICATION – October 30, 2024)

Section: 7.3 (Reporting and Confirmation Period)

Context: Section 7.3 describes the relationship between the reported FMUs and the confirmation period, as well as the confirmation period timeline. It also specifies requirements around when confirmation services may commence, noting in its current version that confirmation services may not commence until a) the project is submitted and approved by the Reserve and b) at least one year has passed since the project activities leading to seedling establishment (tree planting or site preparation to enable the natural establishment of tree seedlings) have been completed. The one-year delay before the start of confirmation activities is intended to allow the trees that were planted or are naturally regenerating under the project to establish more fully, thereby providing a better indication of long-term viability. However, the assessment of the viability of newly established trees is not performed by the confirmation body until the site visit. Therefore, this section is being modified to clarify that the confirmation services may commence a) once the project is successfully submitted and approved for listing by the Reserve and b) the project activities leading to tree establishment have been completed. However, the confirmation site visit may not begin until at least one year after the completion of project activities (tree planting or site preparation to enable the natural establishment of tree seedlings).

Clarification: Section 7.3 shall now read as follows (bold text indicating new text, strikethrough text indicating text being removed):

“Project proponents must report forecasted GHG removals from the project for the entire crediting period. The project’s report will include all forecasted carbon enhancements for the entire crediting period. A confirmation period is the period of time over which forecasted GHG removals are confirmed. A confirmation period begins with the project start date and ends with the submission of the final Confirmation Report to Climate Forward. The end date of any confirmation period may not extend past the project crediting end date. Confirmation activities cannot commence until the project is submitted by the project proponent and approved by the Reserve, and **the activity leading to tree establishment (tree planting or site preparation to enable the natural establishment of tree seedlings) has been completed. The confirmation site visit may not commence until** at least one year following the completion of the activity that led to tree establishment (~~tree planting or site preparation to enable natural establishment of tree seedlings~~). For projects employing site preparation to allow for the natural regeneration of trees, the project proponent may wish to delay **the confirmation site visit** more than one year to ensure seedlings have established well enough to be considered healthy and viable during sampling by the confirmation body at the time of the confirmation site visit, as outlined in Appendix A. For projects based on

sowing seeds, **the confirmation site visit** must wait until the project area is stocked with seedlings that are 6 inches in height on average to allow confirmation bodies to evaluate seedling health properly, as indicated in Appendix A.

Under extenuating circumstances, exceptions to the requirement to wait at least one year to **conduct the confirmation site visit** following the completion of activities leading to **seedlingtree** establishment may be made at the sole discretion of the Reserve. In such instances, terms and conditions to be fulfilled by the project proponent are determined by the Reserve to ensure the overall integrity of the FMUs issued are maintained. See the Climate Forward Program Manual for further details.”

Section 8.4.2

10. Confirmation of Baseline Tree and Shrub Carbon Stocks (ERRATUM – June 22, 2023)

Section: 8.4.2 (Confirmation Items - Quantification)

Context: Table 8.2 (Quantification Confirmation Items), in reference to Section 5.1 (Estimating Baseline Carbon Stocks) describes the focus of the review of baseline carbon stocks by the confirmation body in relation to pre-existing trees and shrub cover. For both pools, an analysis of canopy cover (tree or shrub, respectively) is performed by the project proponent, with the results determining the applicable deduction applied to the project carbon stock projections. The confirmation body is to perform the same analyses using the plot locations supplied by the project proponent and comparing their results with those reported by the project proponent. The methodology currently states that the confirmation body is to perform the analysis as the project proponent did, including potentially using all of the sample points required to achieve a standard error less than +/-10% of the estimate. However, the intent of the methodology is not to require the same statistical threshold be achieved by the confirmation body, but to confirm whether the project proponent’s reported results reflect a reasonably accurate assessment of the imagery serving as the basis for the analysis. As such, the confirmation body is only required initially to sample a portion of the plot locations, comparing their individual plot results to determine whether they find a trend of agreement between their classifications and the project proponent’s classifications, with additional plot locations added if the plot results from the confirmation body do not appear to be aligning with the plot results reported for the project. If an initial trend of agreement is not found, additional plots may be assessed by the confirmation body to determine if a trend of agreement can be achieved.

Correction: The first paragraph of the “Quantification Item” description in the first row below the headings in Table 8.2 shall now read as follows (bold text indicating corrected text):

“The baseline carbon stocks related to pre-existing trees or seedlings are estimated following the guidance in Section 5.1. Confirmation body is to replicate the evaluation of pre-existing tree canopy cover and baseline shrub cover **based on a sub-sampling of the sample points used by the project proponent. Confirmation is to be performed on a 10%/5% basis, where a random selection of 10% of the point locations used by the project proponent are assessed by the confirmation body for agreement, with the assessment outcome being satisfactory when there is 95% or greater agreement between the confirmation body’s and project proponent’s plot results.**”

If confirmation is not satisfied after the initial 10% of sample points are assessed, the confirmation body may continue sampling an additional random selection of 10% of the project sample points, combining the results of the initial 10% of points with the additional 10% of points to assess cumulative agreement. The addition of 10% of the project proponent’s sample points may be performed a third time if needed. Failure to find 95% agreement after three efforts results in failure of the ability to confirm the reported cover percentage and the project proponent must reassess the cover assignments at each point prior to continuing confirmation activities. In such cases, the confirmation body would perform a new review of the project proponent’s analysis based on the same procedure as indicated above using a newly randomized selection of points.”

11. Confirmation of Baseline Shrub Carbon Stocks (ERRATUM – June 22, 2023)

Section: 8.4.2 (Confirmation Items - Quantification)

Context: The seventh row below the headings of Table 8.2 (Quantification Confirmation Items), in reference to Section 5.2.2 (5) (Determining Gross Forecasted GHG Removals), describes the review of photo plots associated with baseline shrub stocking to be performed by the confirmation body. That guidance is in reference to an approach to accounting for baseline shrub stocking that was present in the public comment draft of version 2.0 of the methodology, but was replaced in the final release of the methodology, for which confirmation guidance is provided elsewhere in the same table. As such, the guidance referencing photo plots for baseline shrub stocking is no longer relevant to the project reporting requirements and is being removed.

Correction: The seventh row below the headings of Table 8.2 shall now be removed in its entirety (strikethrough text indicating text being removed):

<p>5.2.2 (5) Determining Gross Forecasted GHG Removals</p>	<p>Images from at least 5 photo plots taken to evaluate shrub carbon stocking are reviewed for each forest type. Plots to be reviewed are randomly selected from among the project’s sample plots and average results from carbon stocking based on the identification of corresponding fuel models must be within 10% of the average results reported by the project proponent.</p>	<p>Yes</p>
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Appendix A

12. Sample area delineation (CLARIFICATION – October 30, 2024)

Section: Appendix A (Confirmation of Site Stocking)

Context: Step 1 of Appendix A describes how confirmation bodies are to determine the sample area within each sampling division based on where the “likely least stocked 40 acres is found.” Although this is explained as being determined via reconnaissance of the sampling division during the site visit, there are potential efficiencies that can be gained by conducting an exercise prior to the site visit to identify on a preliminary basis where the least stocked areas are likely to be found based on known risks to the survival of planted trees.

Additional guidance has been added describing the conditions for identifying the likely location of sample area(s) prior to the site visit and for their potential eventual use to confirm the stocking of a sampling division.

Clarification: Step 1 of Appendix A is modified as follows (bold text indicating new text):

“Confirmation body shall perform visual reconnaissance throughout each sampling division and determine where the likely least stocked 40 acres is found. This shall be referred to as the sample area. **Sample areas shall be contiguous (allowing for breaks such as roads or streams) and shall have a reasonable shape (e.g., not a narrow strip winding along a stream corridor or along a ridgetop). The intent of the sample area is to serve as a representation of the rest of the sampling division, albeit with the lowest stocking.** If the sampling division is less than 40 acres, the sample area includes the entire project area. **Confirmation bodies shall identify sample areas on a preliminary basis on a map prior to the site visit based on relevant risks to successful tree establishment (e.g., ridge exposure, unstable soils, periodic flooding) and include the map and a brief description of the basis for the delineation of the sample areas in the confirmation plan. The final sample area for a given sampling division should be adjusted if reconnaissance during the site visit indicates the preliminary sample area delineation does not capture the least stocked part of the associated sampling division.”**

13. Plot exclusions during sampling (ERRATUM – October 30, 2024)

Section: Appendix A (Confirmation of Site Stocking)

Context: Step 3.g of Appendix A explains that plots may be excluded from the field sampling if the plot center falls on areas not conducive to seedling establishment, or if the plot contains a pre-existing tree. However, the intent of the methodology is that at least 40 sample plots must be the basis for assessing whether the sampling division is sufficiently stocked. Excluding plots leads to an impractical situation if the confirmation body has not identified more than 40 potential plot locations, per Step 2 in Appendix A, and additional sample plot locations need to be incorporated so that at least 40 plots are the basis for the assessment. New language directs the confirmation body to offset plots rather than to exclude them. The method to be used to offset a plot is provided and confirmation bodies are instructed to follow this process for plots that fall on areas not conducive to tree establishment due to cover type (e.g., road, watercourse, wetlands) as well as areas with pre-existing trees.

Correction: Step 3.g of Appendix A is modified as follows (bold text indicating new text, strikethrough text indicating text being removed):

~~“A plot location may be excluded by the confirmation body only~~ If the plot center is located on a site not conducive to seedling establishment, such as a road, landing, watercourse, rocky area, bog, wetland, or other such site **the confirmation body shall offset the plot location by one chain (66 feet) to the north of the original plot center. If the offset plot center still falls on a non-conductive site, the confirmation body shall proceed attempting to offset the plot location one chain to the east, south, and finally to the west of the original plot center to find a suitable location.** In such cases, **where plot offsetting is applied**, the confirmation body shall confirm the site is less than one quarter acre in size and consistent with the requirements specified in Section 3.1. Furthermore,

when conducting sampling on a project that has pre-existing trees, as reported according to baseline quantification requirements outlined in Section 5.1.1, any plot that lands under a pre-existing tree (based on any part of the sample plot falling directly under the canopy of a pre-existing tree) shall be ~~excluded~~ **considered to be not conducive to tree establishment. Thus, if a plot falls under the canopy of a pre-existing tree is excluded,** the confirmation body shall ~~continue to the next plot~~ **offset the plot location as described above.** ~~Excluded plots are to be recorded by the confirmation body to indicate they were not sampled and why. However, excluded plots are not included in the calculation of the stocking level percentage, as outlined in Step 4.~~

14. Confirmation of Site Stocking (CLARIFICATION – October 30, 2024)

Section: Appendix A (Confirmation of Site Stocking)

Context: Step 4 of Appendix A describes the approach required of project experts to confirm via sampling that the project area meets the minimum stocking threshold of 70% within each sampling division at the time of the site visit. Although the intent of the methodology is to require that at least 40 sample plots serve as the basis for the evaluation of sample area stocking by the confirmation body, this is never directly stated. Language is being added to step 4 to explicitly state the minimum 40-plot basis for the calculation of sample area stocking. Guidance is also being provided to clarify how the selection of plots is to be performed in instances where more than 40 potential plot locations are identified through grid placement, but the confirmation body intends to only sample 40 plots (or fewer than the total number of potential plot locations within the sample area).

Furthermore, given that 70% is specified as a minimum threshold for passing the stocking assessment, a sample area (and associated sampling division) is considered sufficiently stocked under the methodology once sampling indicates more than 70% of the plot locations are found to be stocked. Thus, once the 70% threshold is reached during the sampling, the sampling of any remaining plot locations would not impact the determination that the sample area has passed. For example, if a confirmation body identifies 40 plot locations to be sampled within a sample area and, when the 30th plot is sampled, 28 stocked plots have been tallied, the sample area would be considered sufficiently stocked regardless of the stocking determination made for any remaining plots to be sampled. Therefore, to improve confirmation efficiency, clarifying text is being added to indicate that project experts may conclude their field sampling within a sample area once the 70% minimum stocking threshold is achieved.

Clarification: The text under step 4 of Appendix A is modified as follows (bold text indicating new text, strikethrough text indicating text being removed):

“The assessment of the stocking of a sample area must be based on a minimum of 40 plots. In cases where sample areas are identified on a preliminary basis prior to the site visit, if the grid is established in a GIS with more plot locations falling in the sample area than the confirmation body intends to sample in the field, the confirmation body shall determine prior to the site visit which plot locations are to be sampled. During the site visit, the [c]onfirmation body shall tally each sampled plot as being ‘stocked’ or ‘unstocked.’ A stocked plot percentage shall be calculated ~~once all the plots located within the sample area have been sampled~~ relative to the total number of

plot locations identified by the confirmation body for sampling (i.e., a minimum of 40 plots). The confirmation body is to stop sampling within a sample area once either a 70% stocked plot percentage has been achieved or all plot locations identified for sampling have been sampled. If the stocked plot percentage ~~is represents~~ 70 percent or more ~~of all plots sampled~~, the sampling division is determined to meet the stocking requirement. If the stocked plot percentage falls below the 70 percent threshold, the sampling division is determined not to meet the stocking requirement and cannot be issued FMUs. The determination of stocking of each sampling division is made independent of other sampling divisions.”

Appendix B

15. Remote Analysis of Tree and Shrub Cover (ERRATUM – July 5, 2023, and October 4, 2023)

Section: Appendix B (Quantification of Canopy Cover)

Context: [July 5, 2023] Appendix B provides the overarching approach to estimating the percentage of tree and shrub cover for the project using i-Tree Canopy and remotely sensed imagery relevant to the timing of the project. Included is an indication of the statistical accuracy that must be achieved before the project proponent may stop sampling the area of interest. The accuracy requirement is currently based on the standard error related to the estimated percent cover (tree or shrub). However, when performing the analysis on areas that have low percentages of cover, achieving the accuracy threshold may require an inordinate amount of sample points to be analyzed. This is because there are diminishing returns between more i-Tree sampling and reducing the standard error. Once a reasonably accurate estimate of the percent cover has been achieved, more sampling to achieve the specified accuracy threshold may have nearly insignificant changes to the cover estimate and standard error.

Given that the percentage of non-tree or non-shrub cover is being estimated simultaneously as part of the i-Tree Canopy analysis, the accuracy threshold may be achieved by either the cover or non-cover estimate and still result in a reasonably accurate outcome for estimating the percent cover for the purposes of the methodology.

[October 4, 2023] Two additional minimum sampling requirements are being added to help ensure the reliability of the analyses. Both new sampling requirements must be satisfied, along with reaching the standard error threshold, before sampling may be stopped. The first specifies the minimum number of points that must be assigned to each category (e.g., tree vs. non-tree). The second specifies the minimum total number of sample points that must be analyzed.

Correction: The fourth and fifth paragraphs of Appendix B are modified as follows (bold text indicating corrected text for erratum issued July 5, 2023, and italicized bold text indicating corrected text for erratum issued October 4, 2023):

“Sampling, whether for pre-existing tree canopy cover or for shrub cover, must ***meet each of the following three criteria:***

- Achieve a standard error that is +/- 10 percent or less of the estimate of **percent cover for either the presence (tree or shrub) or absence (non-tree or non-shrub) category**. For example, if percent tree canopy cover is estimated as 35 percent, **with a corresponding non-tree cover estimate of 65 percent, sampling may be halted once a standard error of either 3.5 percent for the tree cover category or 6.5 percent for the non-tree cover category is achieved.**
- **Assign a minimum of 10 points to each category. For example, if points are being classified as either “tree” or “non-tree,” then the analysis must continue until at least 10 points have been classified as “tree” and 10 as “non-tree.”**
- **Analyze a minimum of 100 sample points in total.**

The methodology presented below is based on the use of i-Tree Canopy, which does not directly allow for the selection of specific imagery dates. As such, the analysis should be performed using i-Tree Canopy’s instructions for comparing results to historical imagery, with imagery from other sources and from appropriate dates for the analysis used. To properly use imagery outside of the i-Tree Canopy interface, the project proponent should estimate the number of sample points required to achieve the target standard error of +/- 10 percent of the **estimated percent cover for either the presence or absence category**. Alternatively, sample points may be added in i-Tree Canopy until the target standard error is achieved based on the provided imagery (**in addition to having at least 10 sample points per category and 100 total sample points**); however, a comparison of the points initially sampled in i-Tree Canopy to the appropriate historical remote imagery may result in the need to add more sample points to properly achieve the target standard error.”